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For confidential circulation to plant pathologists in Australia. PLEASE DO NOT ABSTRACT.

COMMONWEALTH MYCOLOGICAL INSTITUTE
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CEREALS AND GRASSES.

OVULARIA EYESPOT OF LOLIUM SPECIES:

Following an abnormally wet winter and spring an eyespot condition affecting the leaves of Lolium rigidum Gaud. (Wimmera ryegrass) and L. perenne (perennial ryegrass) was observed in several districts in Southern N.S.W. during October and November 1956. The condition was particularly prevalent on Wimmera ryegrass in the Wagga district where the leaves of plants in many pasture stands died off prematurely as a result of the attack.

Individual leaf lesions, surrounded by a halo of chlorotic yellow to orange coloured tissue were more or less circular with a dark brown border enclosing a central greyish spot. The diameter of the lesions, including the surrounding "halo", was 3-5 mm. As lesions aged the identity of the central eyespot was lost and the entire affected area assumed a dark brown colour. In cases of severe infection it was not uncommon for adjoining lesions to coalesce, ultimately involving entire leaf surfaces.

Incubation of affected leaf pieces led to the development of erect, tuft-like, hyaline and septate conidiophores bearing numerous acrogenous, distinctly spiny, oval to sub-pyriform, unicellular and hyaline conidia referable to the genus Ovularia. On the basis of conidiophore (30-140 x 2-5 μ) and spore (8-20 x 6-12 μ) measurements the species has been identified as O. pusilla (Ung.) Sacc. and D. Sacc. as emended by Sprague (Mycologia 47 : 835-845, 1955).

This is the first record of the occurrence of O. pusilla in N.S.W. It also appears to be the first record of its occurrence on Lolium rigidum.

- F.C. BUTLER.

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SYSTEMIC BLUE MOULD INFECTION IN NORTH QUEENSLAND.

Damage to tobacco crops in North Queensland due to what has come to be known as "systemic" blue mould infection was very severe in November and December, 1956, particularly in the tobacco growing districts along the Burdekin River.

Plants were affected with a variety of symptoms all obviously related to a characteristic dark brown internal breakdown of the stalks. Loss of turgor with consequent drooping of foliage and one-sided development of plants (i.e. normal leaves on one side and small often deformed leaves on the other) all contributed to the damage sustained but the most spectacular feature was the rapid collapse of affected crops due to stalk breaking, especially during wind storms.

It appears that symptoms of blue mould infection can be manifested in two forms which may be designated the "acute" and the "chronic". "Acute" infections which generally occur early in the life of the crop give rise to large, prolifically sporulating spots on the lower leaves; the fungus eventually invades the internal conducting tissues of mid-ribs and stalks and later the symptoms which have been described above as a result of "systemic" infection appear. Subsequent foligge infections, if they develop, are usually of the "chronic" form i.e. smaller spots with reduced spore production or, more commonly, a breakdown of midribs or veins often accompanied by puckering of the leaf in the vicinity of the blighted structure.

Some evidence has been collected which indicates that, if the early "acute" infection reaches the "systemic" stage, it confers on the plant a resistance to subsequent foliage infection. In many cases evidently the resistance is partia only, hence the development of the "chronic" symptoms.

- W. PONT.

Department of Agriculture & Stock,

Cairns. Queensland.

RUGOSE LEAFE CURL MIRUS IN WHITE CLOVER:

The rugose leaf curl virus has in recent years been accepted as a limiting factor in the growing of red clover in South Eastern Queensland. Although symptoms had been observed in white clover it was thought to show some resistance and no appreciable damage to this species had been recorded.

However, in February of this year the New Zealand white clover in a 2 year old mixed pasture at Pie Creek near Gympie was found to be severely affected by rugose leaf curl. The stand was almost completely infected and had been badly stunted during the summer despite ample irrigation. Advanced symptoms were also present in the red clover component which had largely died out.

Since the first inspection the white clover has commenced to grow away and the stand may return to normal by the winter. An adjacent one year old pasture is quite healthy and the white clover in other mixed pastures in the district has remained unaffected by the virus.

Serious infection of white clover by the rugose leaf curl virus has also been reported by Mr. G. Purss in the Kingaroy district.

- B.L. OXENHAM.

Department of Agriculture & Stock,

Nambour. Queensland.

CITRUS BUD-UNION DECLINE IN QUEENSLAND:

Over the years there have been various reports in Queensland of attempts by nurserymen and citrus orchardists to work orange and mandarin trees on sour orange rootstock. Those attempts have invariably met with failure and the trees have declined or died before they could be planted out in the field. It has therefore been accepted that the "bud-union decline" virus has been present in coastal Queensland for a long time.

The first record of "bud-union decline" in a field planting in Queensland was recently made at Burrum in the Maryborough district. The trees were of the Robertson Navel variety and had been worked on Natsu Mikan rootstock. Seedling trees of the rootstock variety had impressed the grower with their vigour on an adjacent property.

The worked trees did not decline rapidly but were stunted, chlorotic and unthrifty. Five years after budding they were only 2-3 feet in height. Iodine tests indicated that starch was present in the butts and larger roots at the time of examination, but there was thickening of the bark below the bud-union and abnormality of the phloem in the region. There were signs that the roots had periodically died back from the tips and then shot again. Many roots were dead or dying when the trees were removed.

- B.L. OXENHAM.

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PLANT PATHOLOGY DISCUSSION GROUP:

In May 1955 a meeting of persons interested in mycology and plant pathology was convened by Mr. D.S. Teakle to consider whether there should be formed in Brisbane a society or discussion group which might discuss from time to time topics of phytopathological interest. Dr. R.F. Langdon was elected chairman of the meeting. After some discussion it was decided that for the present no formal society would be formed but that informal meetings should be called several times each year. To implement this, Dr. Langdon was appointed Convenor. Mr. G.C. Hughes and Mr. D.S. Teakle were appointed to consult with the convenor concerning topics for discussion at meetings.

The discussion group brings together representatives from the University, C.S.I.R.O., Department of Agriculture and Stock and several commercial firms handling agricultural chemicals. Three meetings were held in 1955. The general opinion was that meetings were worth-while and should be continued.

- R.F.N LANGDON.

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